L Number	Hits	Search Text	DB	Time stamp
1		Ulig:meriz\$5 near40 (lube or lubricating or lubricating or lubricant)	USPAT	2003/01/16
2	2775	:ligemeriz\$5 nearl2 (olefin or olefinic	USPAT	15:30 :2003/01/16
-	2773	or methylene or ethylene or propylene or	USPAI	15:10
		butene or butylene or ethene or alkene or		10.10
i		propene or pentene or hexene)		
3	314	coligomeriz\$5 near4: (lube or lubricating	USPAT	2003/01/15
		or lubricant)) and oligomeriz\$5 near12		15:10
		olefin or elefinis or methylene cr	i	
i		ethylene or propylene or butene or		
		butylene or ethene or alkene or propene		
1	48167.1	or pentene or hexene)   	· Habam	202121
	401074	or bottom)	USPAT	2003/01/16
	62	:(oligomeriz\$5 near40 (lube or	USPAT	15:12 2003/01/16
		lubricating or lubricant) and	OSFAI	15:24
1		oligomeriz\$5 nearl2 (olefin or olefinic		14.423
		or methylene or ethylene or propylene or	į į	
		butene or butylene or ethene or alkene or		
;		propene or pentene or hexene))) and	i	
		(light or top or overhead) hear10 (heavy	i i	· ·
	200	or bottom))		
	389	catalytic adj distillation	USPAT	2003,01/16
	3	(((cligomeriz\$5 near40 (lube or	USPAT	15:30
i		lubricating or lubricant() and	USPAI	2003/01/16 - 15:24
		(oligomeriz\$5 nearl2 (olefin or blefinic		1 25 1 2 4
		or methylene or ethylene ir propylene or		
		butene or butylene or ethene or alkene or		
		propens or pentens or hexens))) and		1
		collight or top or overhead) hear10 (heary		
		or bottom())) and (satalytic adj	:	
;	:	distillation)		
	279	Oligomeriz\$5 near9 (lube or lubricating	USPAT	2003/01/16
,	F 0	er lubricant)		15:30
'	52	(cligomeriz\$5 near40 (lube or	USPAT	2003/01/16
		lubricating or lubricant() and coligomeriz\$5 near12 (olefin or clefinic		15:30
		or methylene or ethylene or propylene or		į
		butene or butylene or ethene or alkene or		
İ	;	propene or pentene or hexene):) and	i	
	i	(light or top or everhead) near20 (heavy		
:		or bottom))) and soligomeriz\$5 near9	:	
		(lube or lubricating or lubricant))		
0	114550	distillation	USPAT	12003/01/16
1	4.1	4.4.6.2		15:30
1	41	:(((oligomeriz\$5 near40 (lube or	USPAT	2003/01/16
1		lubricating or lubricant:) and		15:31
		<pre>(oligomeriz\$5 near12 (olefin or clefinic or methylene or ethylene or propylene or</pre>		
	İ	butene or butylene or ethene or alkene or		!
		propens or pentens or hexens):) and		
: I		(light or top or overhead) near10 (heavy		
	1	cr bottom):) and (oligomeriz\$5 near9		İ
!		(lube or lubricating or lubricant))) and		
		distillation		
2		(oligomer\$6 or dimer\$7 or trimer\$7)	USPAT	2003/01/16
3		near12 distillation		16:27
)		(((((oligomeriz\$5 near40 (lube or	USPAT	2003/01/16
		<pre>lubricating or lubricant)) and coligomeriz\$5 near12 (clefin or clefinic)</pre>		15:36
1	İ	or methylene or ethylene or propylene or		
i	i	butene or butylene or ethene or alkene or		
i	i	propens or pentane or hexens)) and		
!	!	(light or top or overhead) near20 (heavy		
	:	cr bottom) ) and (oligomeriz\$5 near9		
	i	(lubs or lubricating or lubricant))) and		ļ
	:	distillation) and (oligomer\$6 or dimer\$7		
		cr trimer\$7) near12 distillation)		!

14	15762	produc\$6 near10 (lube or lubricating or	USPAT	2003/01/16
16	4765	<pre>lubricant) (heavy or bottom) near? (lube or lubricating or lubricant)</pre>	USPAT	15:37 2003/01/16
17	8	<pre>(((((((oligomeriz\$5 near40 (lube or</pre>	USPAT	15:38 2003/01/16 115:40
		(oligomeriz\$5 near12 (clefin or olefinic for methylene or ethylene or propylene or butene or butylene or ethene or alkene or		10:40
18	2	propene or pentene or hexene))) and ((light or top or overhead) near20 (heavy or bottom))) and (oligimeriz\$5 near9 (lube or lubricating or lubricant))) and distillation) and (coligomer\$6 or dimer\$7 or trimer\$7 near12 distillation) and (produc\$6 near10 (lube or lubricating or lubricant)); and (theavy or bottom) near9 (lube or lubricating or lubricating distillation) and (((((displayment)) and distillation) and ((((displayment))))	USPAT	2003/01/16 15:43
		lubricating or lubricant:) and coligomeriz\$5 near12 (elefin or elefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hexene):) and ((light or top or everhead) near20 (heavy or bottom))) and (eligemeriz\$5 near9 (lube or lubricating or lubricant))) and distillation) and (coligomer\$6 or dimer\$7 or trimer\$7) near12 distillation)) and (produc\$6 near10 (lube or lubricating or lubricant)))		
19	1	4678649.pn.	USPAT	2003/01/16 17:36
20		(oligomeriz\$5 near40 (lube or lubricating or lubricant)) and 4678645.pn.	USPAT	2003/01/16
21	1	4413153.pn.	USPAT	12003/01/16 115:48
22	0	((cligomeriz\$5 near40 (lube or lubricating or lubricant) and 4678645.pn.) and 4413153.pn.	USPAT	2003/01/16 15:48
23	2	((cligomeriz\$5 near40 (lube or lubricating or lubricant)) and 4679645.pn.) or 4411153.pn.	USPAT	2003/01/16 16:24
15	17	<pre>(()((cligomeriz\$5 hear40 (lube or lubricating or lubricant)) and (oligomeriz\$5 hear11 (olefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hexene))) and ((light or top or overhead) hear20 (heavy or bottom))) and (oligomeriz\$5 hear9 (lube or lubricating or lubricant))) and distillation) and ((cligomer\$6 or dimer\$7 or trimer\$7) hear12 distillation)) and (produc\$6 hear10 (lube or lubricating or lubricant))</pre>	USPAT	2003/01/16 15:50
24	64	Tropsh	USPAT	2003/01/16 15:51
25	3581	Tropsch	USPAT	2003/01/16 15:51
26	16	Tropsh and Tropsch	USPAT	2003/01/16   15:51
27	3629	Tropsh or Tropsch	USPAT	2003/01/16 15:51

30		Element of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the s		15:55	
30	397943	(lube or lubricating or lubricant))))	USPAT	2003/01/16	
!	T	<pre>: (produc\$6 near10 (lube or lubricating or lubricant))) and ((heavy or bottom) near9</pre>			
		or trimer\$7) near12 distillation)) and			
1	i	<pre>, (lube or lubricating or lubricant))) and   distillation) and ((oligomer\$6 or dimer\$7</pre>			
		or bottom))) and (bligomeriz\$5 near9			
!		<pre>: properte of pertene of header// and :((light or top or overhead) near20 (heavy)</pre>	İ		
		butene or butylene or ethene or alkene or propene or pentene or hexene))) and	•		
1	1	or methylene or ethylene or propylene or	I	T.	
!		oligomeriz\$5 nearll (olefin or olefinic			
i	T.	<pre>(()((())ligomeriz\$1 near40 (lube or   lubricating or lubricant() and</pre>			
i		(luke or lubricating or lubricant))) or			
		or hottom))) and (bligomeriz\$5 near9			
1	1	<pre>propene or pentene or nexene()) and (light or top or overhead) near20 (heavy)</pre>			
		<pre>butene or butylene or ethene or alkene or probene or pentene or hexene))) and</pre>			
1		for methylene or ethylene or propylene or			
		oligomeriz\$5 nearli (olefin or olefinic			
İ	i	<pre>,bottom()) or (((oligomeriz\$5 near40</pre>		() ()	
		top or overhead) nearly (heavy or			
!	1	for pentene or hexene))) and ((light or		1	
		<pre>butylene or propylene or butene or butylene or ethene or alkene or propene</pre>			
		colefin or elefinit or methylene or ethylene or propylene or butene or			
		lubricanti) and (oligomeriz\$5 nearl2			
	1	rnear40 (lube or lubricating or	1	21:25	
29	5	Tropsh or Tropsch) and ((((oligomeriz\$S	USPAT	2003/01/16	
		<pre>lubricant))) and ((heavy or bottom) near9 ':lube or lubricating or lubricant)))</pre>			
		spreducte nearly (lube or lubricating or			
0	I	or trimer\$7) nearl2 distillation() and			
		distillation) and (poligomer\$6 or dimer\$7			
		cr bottom())) and (oligomeriz\$5 near} (lube or lubricating or lubricant))) and			
		((light or top or overhead) near20 (heavy			
		propene or pentene or hexene()) and		I	
:		butene or butylene or ethene or alkene or			
1		oligomeriz\$5 nearl1 (olefin in olefinic or methylene or ethylene or propylene or	i		
		lubricating or lubricant' and			
	:	-((:(((cligcmeriz\$5 near40 (lube or			
		(lube or lubricating or lubricant)); or			
		<pre>- ((light or top or overhead) near10 (heavy or bottom))) and (oligomeriz\$5 near3</pre>			
		propene or pentene or hexene))) and			
		butene or butylene or ethene or alkene or			
		or methylene or ethylene or propylene or			
		colligomeriz\$5 nearll (olefin or olefinic			
!		<pre>jor hottom)): or (((:cligomeriz\$5 near40</pre>			
		(light or top or overhead) near20 (heavy			
		propene or pentene or hexene () and			
		butene or butylene or ethene or alkene or			
		or methylene or ethylene or propylene or			
		lubricating or lubricant); and (cligomeriz\$5 near12 (clefin or clefinic		15:52	
28	62		USPAT		
28	. 62	(((oligemeriz\$5 near40 (lube or lubricating or lubricant)) and	USPAT	2003/01/16 15:52	

31		B ((Tiopsh or Tropsch) and ((((oligomeriz\$5	. HGDVM	2002/01/16
		near40 (lube or lubricating or	USPAT	2003/01/16 15:55
		lubricant)) and (oligomeriz\$5 near12		10.00
		(olefin or elefinic or methylene or		:
	:	ethylene or propylene or butene or butylene or ethene or alkene or propene		'
i		or pentene or hexene()) and (light or		
		top or overhead) near20 (heavy or	1	
!	1	bottom()) or (((cligomeriz\$5 near40	ļ.	!
	i	(lube or lubricating or lubricant)) and		1
1		coligomeriz\$5 near12 colefin or olefinic		
1	İ	or methylene or ethylene or propylene or butene or butylene or ethene or alkene or	1	!
		Propene or pentene or hexene   ) and	1	- i - !
		(light or top or overhead) near20 (heavy		
1	1	or bottom))) and (oligomeriz:5 near9	1	
i		:lube or lubricating or lubricant))) or		i
	1	<pre>!(((((((()ligomeriz\$5 near40 :lube or   lubricating or lubricant)) and</pre>		
!	I I	(oligomeriz\$5 nearl) (olefin or olefinic	İ	
		or methylene or ethylene or propylene or	:	
:		butene or butylene or ethene or alkene or		
1		(propene or pentene or hexene))) and		
i	1	((light or top or overhead) near20 (heavy		i.
	1	for bottom))) and (oligomeriz\$5 near9 (lube or lubricating or lubricant))) and	1	
		distillation) and (coligomer\$6 or dimer\$7		i
1		or trimer\$7) near12 distillation)) and	·!	
	:	(produc\$6 near10 (lube or lubricating or	:	
	į	lubricant):) and ((heavy or bottom) near9	i	
1		(lube or lubricating or lubricant))))) and (wiscosity or VI or HVI or XHVI)		
32	1	(oligomeriz\$5 near40 (lube or lubricating	USPAT	2003/01/16
i	ļ	cr lubricant; ) and ((cligomeriz\$5 near40)	OSFAI	16:19
1		(lube or lubricating or lubricant)) and		10.10
33	33081	4678645.pn.) or 4413153.pn.) lube or distillate	i .	
!	33001	Tube of distillate	USPAT	2003/01/16
34	. 1	(oligomeriz\$5 near40 (lube or	USPAT	16:20 2003/01/16
i	1	lubricating or lubricant)) and	OSFAI	16:20
		((Oligomeriz\$5 near40 (lube or		10.20
i		lubricating or lubricant)) and		
!		4678645.pn.) or 4413153.pn.)) and (lube or distillate)		
35	1	(oligomeriz\$5 near40 (lube or lubricating)	IICDAM	2002.01/16
		or lubricant)) and (((oligomeriz\$5 near40))	USPAI	2003/01/16
i		(Tube or Lubricating or Lubricant) and		10.24
 36		4578645.pn.) or 4413153.pn.)		
;	0200	cligemerization	USPAT	2003/01/16
37	1	(((oligomeriz\$5 near40 (lube or	USPAT	16:25
ı	!	lubricating or lubricant)) and	ONEWI	2007/01/16
		4578645.pn.) or 4413153.pn.) and		13.23
38		oligomerization		
	1 + 1	(((Oligomeric\$5 near40 (lube or lubricating or lubricant)) and	USPAT	2003/01/16
!		4678645.pn.) or 4413153.pn.) and		16:27
		oligomer\$6		
39	· 0 i	(((oligomeriz\$5 near40 (lube or	USPAT	2003/01/16
	!	lubricating or lubricant)) and		16:27
	ļ į	4678645.pn.) or 4413153.pn.) and		
		(:oligemer\$6 or dimer\$7 or trimer\$7) near12 distillation)		
40	86752	(oligomer\$6 or dimer\$7 or trimer\$7)	USPAT	2003/01/16
4.1			UDIAI	116:28
41	1 !	(((oligomeriz\$5 near40 (lube or	USPAT	2003/01/16
İ		lubricating or lubricant)) and		16:28
		4678645.pn.; or 4413153.pn.) and ((cligomer\$5 or dimer\$7 or trimer\$7))		
• • • • • •	the second of the	Try Timeria, St. Ministra, Or Crimeral)		į į

42	: 2	(((oligomeriz\$5 near4) (lube or	USPAT	2003/01/16
. 12	4	lubricating or lubricant)) and	USPAT	16:39
		4678645.pn.) or 4413153.pn.) and zsm-5		i
13	2	<pre>(produc\$6 near10 (lube or lubricating or lubricant)) and (((coligomeriz\$5 near40</pre>	USPAT	2003/01/16
		(lube or lubricating or lubricant)) and	1	15:38
1		4678645.pn.) or 4413153.pn.) and zsm-5)	1	
44	2	4150062.pn. or 4227992.pn.	USPAT	2003/01/16
	_		:	16:51
† 45	0	oligomerization and (4150062.pn. or	USPAT	2007/01/16
46	2791	4327993.pn.) (oligomeriz\$5 near40 (lube or lubricating	USPAT	16:39 2003/01/16
: "	1	or lubricant) or (bligomeriz\$5 near12	ODIAI	15:32
		(clefin or olefinid or methylene or		
1		ethylene or propylene or butene or		
į	1	butylene or ethene or alkene or propene or pentene or hexene):		
47	0	(4150062.pn. or 4227992.pr.) and	USPAT	2003/01/16
		((oligomeriz\$5 near40 (lube or	OBINI	16:40
1		lubricating or lubricant)) or		
!		. (oligomeriz\$5 nearl2 (clefin or olefinic	1	
		or methylene or ethylene or propylene or butene or butylene or ethene or alkene or		
		propens or pentens or hexens)):		
48	0	((oligemer\$6 or dimer\$7 or trimer\$7) )	USPAT	- 2003/01/16
10	22001	and (4150062.pn. or 4227932.pn.)	!	16:40
49	33081	distillate or lube	USPAT	2003/01/16
5.0	0	(4150062.pn. or 4227992.pn.) and	USPAT	2003/01/16
		distillate or lube		16:41
<b>t</b> ⋅ 1	5812	(heavy or bottom) near9 (lube or	USPAT	, 2003/01/16
1.52		lubric@f)		16:54
ت ،	52	((cligemer\$6 or dimer\$7 or trimer\$7)   near12 distillation: and ((heavy or	USPAT	2003/01/16 16:54
!		bottom: near9 (lube or lubric\$6))		10.14
53	0	(catalytic adj distillation) and	USPAT	2003/01/16
		(*(cliqcmer\$6 or dimer\$7 or trimer\$7)	:	16:58
		hear12 distillation) and ((heavy or bottom) near9 (lube or lubric\$6)))	:	
5.4	8	(catalytic adj distillation) near12	USPAT	2003/01/16
		(:olig:mer\$6 or dimer\$7 or trimer\$7)		16:57
1		near12 distillation:		
55	1	(lube or distillate) and ((catalytic adj	USPAT	2003/01/16
İ		distillation) near12 :(oligomer\$6 or dimer\$7 or trimer\$7; near12		17:01
1		distillation))		
56	1	(clube or distillate) and (coatalytic adj	USPAT	2003/01/16
		distillation) near12 ((oligomer\$6 or dimer\$7 or trimer\$7) near12		17:06
		distillation))) and (lube or distillate)	1 1 2 2	
57	1		USPAT	2003/01/16
		adj distillation) near12 ((oligomer\$6 or		17:08
		dimer\$7 or trimer\$7) near12		
		<pre>distillation))) and (lube or distillate)) and lube</pre>		
58	414	(cligomer\$7 or dimer47 or trimer\$7 or	USPAT	2003/01/16
		polymeriz\$7) r.ear15 ((catalytic or	:	17:21
59	146	reactive or column) near4 distillation) 585/501.ccls.		
	146	353/30L.CCIS.	USPAT	2003/01/16 17:26
60	1535	585/510.ccls. or 585/517-520.ccls. or	USPAT	2003/01/16
		585/601.ccls. or 208/18.ccls.	İ	17:26
61	54	585/502.ccls. and :585/510.ccls. or 585/517-520.ccls. or	USPAT	2003/01/16
		208/18.ccls.)		17:26
62	1627	585/502.ccls. or (585/510.ccls. or	USPAT	2003/01/16
1		585/517-520.dcls. or 585/601.dcls. or		17:28
i		208/18.ccls.)		

63	2	((catalytic adj distillation) near12 ((oligemer\$6 or dimer\$7 or trimer\$7) near12 distillation)) and (585/502.ccls. or (585/510.ccls. or 585/517-520.ccls. or	USPAT	2003/01/16 17:32
		585/601.ccls. or 208/18.ccls.))		
64	0	<pre>(distillate or lube) and (((catalytic adj distillation) nearl2 ((oligomer\$6 or</pre>	USPAT	2003/01/16 17:32
		dimer\$7 or trimer\$7) near12 [distillation]) and (585/502.ccls. or [(585/510.ccls. or 585/517-520.ccls. or		:
		[585/601.ccls. or 308/19.ccls.)))		1
· 65		distillation and 4678645.pn.	USPAT	2003/01/16 17:37
់	: () :	((oligomer\$7 or dimer47 or trimer\$7 or polymer:z\$7) near15 ((catalytic or reactive or column) near4 distillation)) and (distillation and 4678645.pn.)	USPAT	2003/01/16 17:39
67	389		USPAT	2003/01/16 17:38
68	(1	(distillation and 4678645.pn.) and (datalytic adj distillation)	USPAT	17.30 2003/01/16 17:39
69	(1	(heavy or bottom: near9 (lube or lubric\$6)) and ((oligomer\$7 or dimer47 or	USPAT	2003,01/16 17:39
:	:	trimer\$7 or polymeriz\$7) near15   ((datalytic or reactive or column) near4     distillation))	i	
70	1.5	(585/510.ccls. or 585/517-520.ccls. or	USPAT	2003/01/16
	i	585/601.ccls. or 208/19.ccls.) and coatalytic adj distillation)	OSIAI	17:42
71	3	(3585/510.ccls. or 595/517-520.ccls. or 585/601.ccls. or 208/18.ccls.) and (catalytic adj distillation)) and (lube	USPAT	2003/01/16 17:59
7.0		or lubricating or distillate:		
72	!	((585/510.ccls. or 595/517-520.ccls. or 595/601.ccls. or 208/19.ccls.) and	USPAT	2003/01/16 
		(catalytic adj distillation): and (lube		1.7:4
73	1932	or lubricating) (coligomer\$7 or dimer47 or trimer\$7 or	USPAT	2003,01/16
	1301	polymeriz\$7) near15 (coatalytic or	COLINI	17:52
	1	reactive or column; near4 distillation);		
1		or (595/510.ccls. or 585/517-520.ccls. or		
74		545/601.ccls. or 308/18.ccls.)	Harr	0000751716
1 / 4		(viscosity or VI or HVI or XHVI) and (((clidomer\$7 or dimer47 or trimer\$7 or	USPAT	2003/01/16 17:52
		polymeriz\$7) nearly ((datalytic or		1 1 1 1 2
	i	reactive or column: near4 distillation):		<u>;</u>
		or (585/510.ccls. or 585/517-520.ccls. or		•
75	145	585/601.ccls. or 208/18.ccls.))		
75	445	(585/510.ccls. or 585/517-520.ccls. or 585/601.ccls. or 585/601.ccls.) and	USPAT	2003,01/16 17:53
1		((viscosity or VI or HVI or XHVI) and		17.55
	!	:((oligomer\$7 or dimer47 or trimer\$7 or		
	:	polymeriz\$7) near15 ((datalytic or		
		reactive or column; near4 distillation):		
		or (585/510.ccls. or 585/517-520.ccls. or (585/601.ccls. or 208/18.ccls.)))	l i	1
. 76		((oligomer\$6 or dimer\$7 or trimer\$7)	USPAT	2003/01/16
		near12 distillation) and ((585/510.ccls.		17:53
		or 585/517-520.ccls. or 585/601.ccls. or		
	į	208/18.ccls.) and ((viscosity or VI or		
: :		HVI or XHVI) and (((oligomer\$7 or dimer47)		i
İ		or trimer\$7 or polymeriz\$7) near15 ((catalytic or reactive or column) near4		
:		distillation)) or :585/510.ccls. or		
1		585/517-520.ccls. or 585/601.ccls. or		
		208/18.ccls.)):)		·

7 '	4	((cligomer\$7 or dimer47 or trimer\$7 or polymeriz\$7) nearl5 ((catalytic or	USPAT	2003/01/16 - 17:59
		reactive or column) near4 distillation)) and ((-oligomer\$6 or dimer\$7 or trimer\$7)		
		near12 distillation) and ((585/510.ccls.		
		or 585/517-520.ccls. or 585/601.ccls. or		
		1208/18.ccls.) and ((viscosity or VI or HVI or MHVI) and (((oligomer\$7 or dimer47)		
	:	for trimer\$7 or polymeriz\$7) near15		
		(catalytic or reactive or column) near4		
		distillation)) or (585/51).ccls. or		
		585/817-520.cdls. or 585/601.cdls. or 208/18.cdls.))))		
8	: 0	catalytic adj distillation) and	USPAT	2003/01/16
_		(((oligomer\$7 or dimer47 or trimer\$7 or		17:59
	1	polymeriz\$7) near15 ((catalytic or		
		reactive or column) near4 distillation() and ((coligomer\$6 or dimer\$7 or trimer\$7)		
		near12 distillation) and ((585/510.ccls.		
		or 585/517-520.ccls. or 585/001.ccls. or		
		208/18.ccls.) and ((viscosity or VI or		
		HVI or MHVI) and (((oligomer\$7 or dimer47 or trimer\$7 or polymeriz\$7) near15	İ	
		for trimers, or polymerize, nearis [ ((datalytic or reactive or column) near4		
		distillation)) or (585/510.ccls. or		
	:	595/517-520.dcls. or 585/601.dcls. or		1
0	1.0	208/18.cdls.)))))) (585/510.cdls. or 585/517-520.cdls. or	USPAT	: 2003/01/16
ā	10	595/801.dcls. or 208/18.dcls.) and	OSPAI	17:59
		(catalytic adj distillation)		
(ı	67288	lube or lubricating	USPAT	2003/01/16
-1		: - (1595/510.ccls. or 585/517-510.ccls. or	USPAT	18:00 2003/01/16
1	. 0	5857601.cdls. or 3857517-525.cdls. or 5857601.cdls. or	USPAI	18:01
		(datalytic adj distillation)) and (lube		
		or lubricating)	İ	
2	2	((o.igomer\$7 or dimer47 or trimer\$7 or	USPAT	0003/01/16 19:53
		<pre>polymeriz\$7) nearlf ((datalytic or   reactive or column) near4 distillation))</pre>		. uT480
		and (catalytic adj distillation) and		
	! 	(lube or lubricating)	i i	
3	1817	cligomernu\$5 near9 catalyst	USPAT	2003 (01/16 19:54
4		)   (((oligomer\$7 or dimer47 or trimer\$7 or	USPAT	12003/01/16
4		polymeriz37) near15 ((datalytic or	. OSFAI	20:39
		reactive or column) near4 distillation))		
		and (catalytic adj distillation) and		
		(lube or lubricating)) and (oligomeriz\$5     near& catalyst)		
Ę	1	; nears (datalyst)   4308414.pn.	USPAT	2003/01/16
		•		19:00
6	1	(oligomeriz\$5 near9 datalyst) and	USPAT	2003/01/16
7	1075	4308414.pn. (pd or palladium or (group aj VIII) or pt	USPAT	19:08 12003/01/16
ı	10/3	or platinum or ir or iridium or rhodium	ODEMI	19:13
		or noble) near30 oligomeriz\$6		
9		((oligomeriz\$5 near9 catalyst) and	USPAT	2003/01/16
	! 	4308414.pn.) and ('pd or palladium or '' '' (group aj VIII) or pt or platinum or ir		19:07
	1	for iridium or rhodium or noble) near30		
		poligomeriz\$6)		
9	1627	585/502.ccls. or (585/510.ccls. or	USPAT	2003/01/16
		585/517-520.ccls. or 585/601.ccls. or 208/18.ccls.)	:	- <u>-</u> 9:07
(C)	85	208/18.ccis.)   ((pd or palladium or (group aj VIII) or	USPAT	2003/01/16
-		pt or platinum or ir or iridium or		19:08
		rhodium or noble) near30 oligomeriz\$6)	:	
		And (5%5/502.ccls. or (535/510.ccls. or 5%5/517-520.ccls. or 5%5/601.ccls. or	:	
	1	208/18.ccls.)		

91	. 1	(catalytic adj distillation) and (((pd or palladium or (group aj VIII) or pt or platinum or ir or iridium or rhodium or	USPAT	2003/01/16 19:10
		noble) near30 oligomeriz\$6) and (585/502.ccls. or		
		[585/517-520.ccls. or 595/801.ccls. or [208/19.ccls.))		
13	1	<pre>;(pd or palladium or (group aj VIII) or pt or platinum or ir or iridium or rhodium or noble) near30 oligomerit\$6)</pre>	USPAT	2003/01/16 19:10
		and (4309414.pm. or ((catalytic adj distillation) and ((pd or palladium or		
		(group aj VIII) or pt or platinum or ir or iridium or rhodium or noble) near30 oligomeriz\$6) and (585/502.ccls. or		
		(585/510.ccls. or 585/517-520.ccls. or 585/601.ccls. or 585/601.ccls. or 208/18.ccls.))))	ì	! 
4	165 	(pd or palladium or (group adj VIII) or pt or platinum or ir or iridium or	USPAT	2003/01/16 19:15
5	)	rhodium or noble) near30 oligomerit\$6 {{(pd or palladium or (group aj VIII) or	USPAT	2003/01/16
		pt or platinum or ir or iridium or (rhodium or noble) near30 bligomeric\$6) (and (4308414.pn. or ((catalytic ad)		19:13
		distillation) and (((pd or palladium or (group aj VIII) or pt or platinum or ir		
		or iridium or rhodium or noble) near30 bligomeriz\$6) and (585/502.ccls. or (585/510.ccls. or 595/517-520.ccls. or	: : : :	
	i	585/601.ccls. or 209/19.ccls.)))): and (pd or palladium or (group adj VIII) or pt or platinum or ir or iridium or		-
_		rhodium or noble) near30 oligomeriz\$6)		
6		(4309414.pn. or ((datalytic adj   distillation) and (((pd or palladium or ) ((group aj VIII) or pt or platinum or ir	USPAT	2003/01/16 19:14
		or iridium or rhodium or hoble) near30 	: -	
		585/601.ccls. or 208/19.ccls.)))) and (pd or palladium or (group adj VIII) or		
		pt or platinum or ir or iridium or rhodium or noble) near30 oligomeriz\$6)		1
7	259807	<pre>(pd or palladium or (group adj VIII) or pt or platinum or ir or iridium or rhodium or noble)</pre>	USPAT	2003/01/16 19:15
8	1	:4308414.pn. or ((catalytic adj distillation) and (((pd or palladium or	USPAT	2003/01/16 19:15
		<pre> (group aj VIII) or pt or platinum or ir or iridium or rhodium or noble) near30 oligomeriz\$6) and (585/502.ccls. or</pre>		
		(595/510.ccls. or 585/517-520.ccls. or 585/601.ccls. or 208/18.ccls.)))) and ((pd or palladium or (group adj VIII) or		
		pt or platinum or ir or iridium or		
2	2 .	rhodium or noble)) 4308414.pn. or ((catalytic adj	USPAT	2003/01/16
		distillation) and (((pd or palladium or (group aj VIII) or pt or platinum or ir or iridium or rhodium or noble) near30		, 20:16   
		oligomeric\$6) and (585/502.ccls. or (585/510.ccls. or 585/517-520.ccls. or 585/601.ccls. or 208/18.ccls.))))		
9	1	(lube or lubricating) and (4308414.pn. or ((catalytic adj distillation) and (((pd	USPAT	2003/01/16 20:12
		or palladium or (group aj VIII) or pt or platinum or ir or iridium or rhodium or noble) near30 oligomeriz\$6) and		
		(585/502.ccls. or (585/510.ccls. or 585/517-520.ccls. or 585/601.ccls. or 208/18.ccls.)))))	;	

100		1 (oligomeriz\$5 near9 catalyst) and	USPAT	2003/01/16
		(4308414.pn. or ((catalytic adj		20.10
		distillation) and (((pd or palladium or		
		(group aj VIII) or pt or platinum or ir	•	·
		or iridium or rhodium or noble) near30	1	
		oligomeriz\$6) and (585/502.ccls. or		
		(585/510.ccls. or 585/517-520.ccls. or		i i
		585/601.ccls. or 208/18.ccls.)))))		
101		1 6398946.pn.	USPAT	2003/01/16
			i	20:39
102		0 (catalytic adj distillation) and	USPAT	2003/01/16
		6398940.pn.		21:04
103	:	0: (catalytic adj distillation) and ((Tropsh	USPAT	2003/01/16
		or Tropsch) and (((oligomeriz\$5 near40		21:25
		(lube or lubricating or lubricant)) and	:	:
1		(oligomeriz\$5 nearl2 (olefin or olefinic		
i		or methylene or ethylene or propylene or		
		butene or butylene or ethene or alkene or	-	
i	1	propene or pentene or hexene);) and		:
		(light or top or overhead) near20 (heavy		
		or bottom))) or (((toligomeriz\$5 near40		
	1	(lube or lubricating or lubricant)) and		
	i	(oligomeriz\$5 near12 (olefin or olefinic		
1		or methylene or ethylene or propylene or		
		butene or butylene or ethene or alkene or		
	ļ	propene or pentene or hemene))) and	1	1
		((light or top or overhead) near20 (heavy	T.	
		or bottom))) and (oligomeriz\$5 near9		İ
	1	(lube or lubricating or lubricant))) or	:	
		(((((((oligomeriz\$5 near40 (lube or		
i	i	lubricating or lubricant:) and	i	
		(oligomeriz\$5 near12 (olefin or olefinic	:	
		or methylene or ethylene or propylene or		
	1	butene or butylene or ethene or alkene or		
:	į	propens or pentens or hexens):) and	*	
	1	(light or top or overhead) near20 (heavy		
1		or bottom))) and (bligomeriz\$5 near9	1	
		(lube or lubricating or lubricant))) and		
		distillation) and (oligomer\$6 or dimer\$7		
1		or trimer\$7) near12 distillation() and	1	
į	:	produc\$6 near10 (lube or lubricating or		
		lubricant))) and ((heavy or bottom) near9		1
	;	(lube or lubricating or lubricant)))))		
	1	(Tube of Tubificating of Tubificatio, 1) )		

L Number	Hits Search Text	DB	Time stamp
99	1 (lube or lubricating) and (4308414.pm. or (catalytic adj distillation) and ((pd or palladium or (group aj VIII) or pt or platinum or ir or iridium or rhodium or noble) near30 oligomeriz\$6) and (585/502.ccls. or 585/510.ccls. or 585/517-520.ccls. or 585/601.ccls. or 208/18.ccls.))))	USPAT	2003/01/16
100	l coligomeriz\$5 near@ datalyst) and (4309414.pn. or ((datalytic adj distillation) and (c)qd or palladium or (group aj VIII) or pt or platinum or ir or iridium or rhodium or noble) near30 oligomeriz\$6) and (585/502.ddls. or (585/500.ddls. or 555/601.ddls. or 20%/18.ddls.)))))	USPAT	2003,01/16 20:16
101	1 6395946.pn.	USPAT	.2003/01/16 20:39
102	0 (catalytic adj distillation) and	USPAT	2003/01/16
. 103	### (398946.pm.    catalytic adj distillation) and ((Tropsh or Tropsch) and ((((d))) and ((ligomeriz\$5 near40)) (lube or lubricating or lubricant)) and (oligomeriz\$5 near11 (olefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hexene)) and ((light or top or overhead) near20 (heavy or bottom)) or ((((d))) gomeriz\$5 near40 (lube or lubricating or lubricant)) and (oligomeriz\$5 near11 (olefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hexene)) and ((light or top or overhead) near20 (heavy or bottom)) and (oligomeriz\$5 near9 (lube or lubricating or lubricant)) or (((((((d)))) and (oligomeriz\$5 near40 (lube or lubricating or hexene)) and (oligomeriz\$5 near11 (olefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hexene)) and ((light or top or overhead) near20 (heavy or bottom)) and (cligomeriz\$5 near9 (lube or lubricating or lubricant)) and		21:04 2003/01/16 21:30
	distillation) and ((oligomer\$6 or dimer\$7 or trimer\$7) near12 distillation;) and ((produc\$6 near10 (lube or lubricating or lubricant))) and ((heavy or bottom) near9	· · · · · · · · · · · · · · · · · · ·	
	(lube or lubricating or lubricant)))))		

2003/01/16

42 ((((((oligomeriz\$5 near40 (lube or lubricating or lubricant)) and (oligomeriz\$5 near12 (blefin or blefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propens or pentens or hexens))) and :(light or top or overhead) near10 (heary or bottom()) and (oligomeriz\$1 near9 (lube or lubricating or lubricant))) and distillation) and (:oligomer\$6 or dimer\$7 or trimer\$7) Hearl2 distillation:) or +((((((oligomeriz\$5 near40 (lube or lubricating or lubricant() and (oligomeriz\$5 nearl) (olefin or blefinis or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hexene) () and ((light or top or overhead) near10 (heavy or bottom))) and (oligomeriz\$5 near9 (lube or lubricating or lubricant))) and distillation) and (:oligomer\$6 or dimer\$7 or trimer\$7) near12 distillation) and (product6 near10 (lube or lubricating or lubricant()) and ((heavy or bottom) near9
(lube or lubricating or lubricant))) or ((datalytic adj distillation) and ((((((cligomeriz\$5 mear40 (lube or lubricating or lubricant); and koligomeriz\$5 nearll (elefin or elefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hexene) ') and ((light or top or overhead) hear10 (heavy or bottom::) and (blidomeriz\$5 near9 (luke or lubricating or lubricant))) and distillation) and (:oligomer\$6 or dimer\$7 or trimer\$7) near12 distillation); and (product6 near10 (lube or lubricating or lubricant()))) or ((bligomeriz\$5 near40 (lube or lubricating or lubricant)) and 4678645.pn.) or 4413153.pn. or (((dligomeriz(5 near40 (lube or lubricating or lubricant); and 4678645.pn.) or 4413153.pn. (Tropsh or Tropsch) and (((coligemeriz\$5 near40 (lube or lubricating or lubricant)) and (oligomeriz\$5 nearl2 (elefin er elefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hemene):) and ((light or top or overhead) near20 (heavy or bottom))) or (((coligomeriz\$5 near40 (lube or lubricating or lubricant); and (oligomer:z\$5 nearl: (olefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hemene) . ) and ((light or top or overhead) hear10 (heary or bottom))) and (oligomeriz\$5 near9 (lube or lubricating or lubricant))) or (((((((oligomeriz\$5 near40 (lube or lubricating or lubricant): and (oligomeriz\$5 near12 (olefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hexene):) and ((light or top or overhead) near10 (heavy or bottom))) and (oligomeriz\$5 near9 (lube or lubricating or lubricant))) and distillation) and ((oligomer\$5 or dimer\$7 or trimer\$7) near12 distillation:) and 1/ (produces nearly (lube or lubricating or lubricans))) and ((heave or bottom) nearg (lube or lubricating or lubricant))))) or 110 hydrofinish\$ nearl2 (lube or distillate) USPAT 2003/01/16 21:34

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105

((((oligomeriz\$5 near40 (lube or

(lube or lubricating or lubricant))))) or

((((oligomeriz\$5 near40 (lube or

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107

2003/01/16

21:35

109	97993 hydrofinishing or hydrofinished or	USPAT	2003/01/16	
102	hydrotreat\$3 or hydrogenat\$3		21:36	
110	1012 (lube or lubricating) nearl2 (	· USPAT	2003/01/16	
	hydrofinishing or hydrofinished or	į	21:37	
	hydrotreat\$3 or hydrogenat\$3)			į

USPAT

2003/01/16 21:37

6 (((((())ligomeriz\$5 near40 (lube or lubricating or lubricant:) and (oligomeriz\$f nearl2 (olefin or olefinic for methylene or ethylene or propylene or butene or butylene or ethene or alkene or propens or pentens or hemens):) and colight or top or overhead) nearDD (heavy or bottom))) and (bligomeriz\$5 near9 (lube or lubricating or lubricant))) and distillation) and colligomer\$6 or dimer\$7 or trimer\$7) nearl? distillation:) or cr(((:::oligomeriz@S near40 (lube or lubricating or lubricant() and (oligomeriz\$5 near12 (olefin or olefinio or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propens or pentene or hexene) () and ((light or top or overhead) near10 (heavy or bottom) () and (oligomeriz\$5 near@ (lube or lubricating or lubricant))) and distillation) and ((oligomer\$6 or dimer\$7 or trimer\$7) near12 distillation)) and aproduc\$6 near10 (lube or lubricating or lubricant()() and ((heavy or bottom) near9
(lube or lubricating or lubricant)()) or ((datalytic adj distillation) and (((((coligomeriz\$5 near40 (lube or lubricating or lubricant() and (cligomeriz\$5 nearl) (olefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propens or pentens or hemens) () and ((light or top or oferhead) near10 (hearty or bottom):) and (oligomeriz\$5 near9 (lube or lubricating or lubricant))) and distillation) and Coligomer\$6 or dimer\$7 or trimer\$7) near11 distillation() and (produc\$6 near10 (lube or lubricating or lubricant())) or (:oligomeriz\$5 near40 (lube or lubricating or lubricant)) and 4678645.pn.) or 4413153.pn. or :((oligomeriz\$5 near40 (lube or lubricating or lubricant:: and 4678645.pn.) or 4413153.pn.) or ((Tropsh or Tropsch: and ((::oligomeriz\$5 near40) (lube or lubricating or lubricant)) and (oligomeriz\$5 nearl2 (olefin or olefinio or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propens or pentens or hexens):) and (light or top or overhead) near20 (heavy or bottom()) or (((coligomeriz\$5 near40 (lube or lubricating or lubricant): and coligemeriz\$5 nearl2 colefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propene or pentene or hemene):) and ((light or top or overhead) hear10 (heavy or bottom))) and (oligomerit\$5 near9 (lube or lubricating or lubricant))) or ((((((((cligomeriz35 near40 (lube or lubricating or lubricant)) and (cligomeriz\$5 nearl? (olefin or olefinic or methylene or ethylene or propylene or butene or butylene or ethene or alkene or propens or pentens (r hemens) () and ((light or top or overhead) near20 (heavy or bottom))) and (oligomeriz\$5 near9 [(lube or lubricating or lubricant):) and distillation) and (oligomer\$6 or dimer\$7 or trimer\$7) near12 distillation)) and 1/inbrigant))) and ((hease or bottom) nears (lube or lubricating or lubricant);))) or

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